Week 31 Bio Warmups

Match each definition with the correct term.

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| 1. | process in which mRNA is created from a DNA template | a. | replication |
| 2. | monomers of nucleic acids, such as DNA | b. | transcription |
| 3. | the rungs of a DNA molecule, such as adenine, cytosine, etc. | c. | translation |
| 4. | process by which DNA copies itself | d. | nucleotide |
| 5. | process in which tRNA creates a protein by linking amino acids according to mRNA’s instructions | e. | nitrogen bases |

Match each molecule with its job description.

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| 1. | transports amino acids to the ribosome and links them together to make a protein | a. | DNA |
| 2. | supervises protein production by traveling from the nucleus to the ribosome with the instructions from a double-stranded template | b. | tRNA |
| 3. | maintains the genetic code by replicating itself while in the nucleus | c. | mRNA |

Match each description of the molecule to which it refers.

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| 1. | its sugar is ribose | a. | DNA |
| 2. | its bases are adenine, thymine, cytosine, and guanine | b. | RNA |
| 3. | it is double-stranded |  |  |
| 4. | its sugar is deoxyribose |  |  |
| 5. | its bases are adenine, uracil, cytosine, and guanine |  |  |
| 6. | it is single-stranded |  |  |

Listed below are the 5 statements about DNA and protein synthesis. Choose the term listed in parentheses that will correctly complete the sentence.

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| 1. | A codon consists of (**two, three**) nucleotides. |
| 2. | (**mRNA, tRNA**) carries instructions for making proteins from the nucleus to the ribosome. |
| 3. | The mRNA strand that matches the DNA strand ATGGTAC is (**TACCATG, UACCAUG**). |
| 4. | Amino acids are brought to the ribosome for assembly into a protein by (**mRNA, tRNA**). |
| 5. | (**DNA, RNA**) can be found in the cytoplasm during interphase in a eukaryotic cell. |

Match each mutation with the correct term.

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| 1. | CTAGCA becomes CTACGCA | a. | substitution |
| 2. | JKLMNO becomes JJKLMNO | b. | translocation |
| 3. | JKLMNO becomes JKNMLO | c. | inverison |
| 4. | CTAGCA becomes CAAGCA | d. | insertion |
| 5. | JKLMNO become JKLXYZ | e. | duplication |